

BATTERY EMPLOYING AN ELECTRODE PELLET HAVING AN INNER ELECTRODE EMBEDDED THEREIN

Abstract

An electrochemical battery cell comprising a cell housing defining an inner space, a first terminal and a second terminal; and at least one pre-formed pellet disposed within the inner space of the cell housing. The pellet includes an outer electrode portion formed from a material to geometrically define the pellet in a solid form. The outer electrode portion is in electrical communication with the first terminal of the cell housing. The pellet also includes an inner electrode encapsulated by a separator and embedded within the material of the outer electrode portion. The inner electrode is in electrical communication with the second terminal of the cell housing and electrically insulated from the outer electrode material. In a preferred embodiment, the inner electrode comprises an anode and the outer electrode portion comprises a cathode portion. The integrated anode/cathode pellet configuration facilitates lowers costs, a more robust design and ease of manufacturability while maintaining and allowing increased performance character-

istics of the battery cell.